

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-74. (Cancelled).

a! 75. (Currently Amended) An isolated nucleic acid molecule encoding the antibody of claim [[1]] 27.

76-78. (Cancelled).

79. (Currently Amended) A cell line engineered to express the antibody of claim [[1]] 27.

80. (Cancelled).

81. (Currently Amended) An antibody that competitively inhibits the binding of the I006D08 antibody produced by the cell line having ATCC_Deposit Number PTA-3239 to BLYS wherein said antibody competitively inhibits said binding more than the I006D08 antibody competitively inhibits itself.

82. (Currently Amended) An antibody that competitively inhibits the binding of the I116A01 antibody produced by the cell line having ATCC_Deposit Number PTA-3240 to BLYS wherein said antibody competitively inhibits said binding more than the I116A01 antibody competitively inhibits itself.

83-86. (Cancelled).

87. (Currently Amended) A method for detecting aberrant expression of BLyS protein, comprising:

(a) assaying the level of BLyS ~~expression~~ in a first biological sample of an individual using one or more antibodies ~~or fragments or variants thereof~~ of claim ~~[[1]]~~ 27; and

(b) comparing the level of BLyS assayed in the first biological sample with a standard level of BLyS ~~expression~~ or level of BLyS in a second, normal biological sample;

[[c)] wherein an increase or decrease in the assayed level of BLyS in the first biological sample compared to the standard level of BLyS ~~expression~~ or level of BLyS in a second, normal biological sample, is indicative of aberrant expression of BLyS.

88. (Currently Amended) A method for diagnosing a disease or disorder associated with aberrant BLyS expression or activity, comprising:

(a) administering to a subject an effective amount of a labeled antibody of claim ~~[[1]]~~ 27 that immunospecifically binds to BLyS;

(b) waiting for a time interval following the administering for permitting the labeled antibody of claim ~~[[1]]~~ 27 to preferentially concentrate at sites in the subject where BLyS is expressed;

(c) determining background level; and

(d) detecting the labeled antibody ~~of claim 1~~ in the subject~~[[1]]~~;

~~such that wherein the~~ detection of labeled antibody above the background level indicates that the subject has a particular disease or disorder associated with aberrant expression of BLyS.

89. (Currently Amended) A method of treating, preventing or ameliorating a disease or disorder associated with aberrant BLyS expression or activity, comprising administering to an animal in need thereof, the ~~pharmaceutical composition-antibody~~ of claim ~~[[73]]~~ 27 in an amount effective to treat, prevent or ameliorate the disease or disorder.

90-96. (Cancelled).

97. (New) An isolated antibody that immunospecifically binds BLyS which comprises a first amino acid sequence at least 85% identical to amino acid residues 1-123 of SEQ ID NO:327 and a second amino acid sequence at least 85% identical to amino acid residues 139-249 of SEQ ID NO:327.

98. (New) The antibody of claim 97 wherein the first amino acid sequence is at least 95% identical to amino acid residues 1-123 of SEQ ID NO:327 and the second amino acid sequence is at least 95% identical to amino acid residues 139-249 of SEQ ID NO:327.

99. (New) The antibody of claim 97 wherein the amino acid differences between the first amino acid sequence and amino acid residues 1-123 of SEQ ID NO:327 are in one or more of the CDR regions located at amino acid residues 26-35, 50-66 and 99-112 of SEQ ID NO: 327 and wherein the amino acid differences between the second amino acid sequence and amino acid residues 139-249 of SEQ ID NO: 327 are in one or more of the CDR regions located at amino acid residues 163-173, 189-195 and 228-238 of SEQ ID NO: 327.

100. (New) The antibody of claim 97 wherein the first amino acid sequence is amino acid residues 1-123 of SEQ ID NO: 327 and the second amino acid sequence is amino acid residues 139-249 of SEQ ID NO: 327.

101. (New) The antibody of claim 97 wherein the first amino acid sequence is amino acid residues 1-123 of SEQ ID NO:2 and the second amino acid sequence is amino acid residues 139-249 of SEQ ID NO:2.

102. (New) The antibody of claim 82 wherein the antibody is selected from the group consisting of:

- (a) a whole immunoglobulin molecule;
- (b) an scFv;
- (c) a chimeric antibody;
- (d) a Fab fragment;
- (e) an Fab' fragment; and
- (f) an F(ab')₂.

103. (New) The antibody of claim 82 wherein the antibody is a monoclonal antibody.
104. (New) The antibody of claim 82 wherein the antibody is a human antibody.
105. (New) The antibody of claim 82 which comprises a heavy chain immunoglobulin constant domain selected from the group consisting of:
- (a) a human IgM constant domain;
 - (b) a human IgG1 constant domain;
 - (c) a human IgG2 constant domain;
 - (d) a human IgG3 constant domain;
 - (e) a human IgG4 constant domain; and
 - (f) a human IgA constant domain.
106. (New) The antibody of claim 82 which comprises a light chain immunoglobulin constant domain selected from the group consisting of:
- (a) a human kappa constant domain; and
 - (b) a human lambda constant domain.
107. (New) The antibody of claim 82 wherein the antibody has a dissociation constant (K_D) less than or equal to 10^{-9} M.
108. (New) The antibody of claim 82 wherein the antibody is coupled to a detectable label.
109. (New) The antibody of claim 108 wherein the detectable label is a radioisotope, an enzyme, a fluorescent label, a luminescent label, bioluminescent label or biotin.
110. (New) The antibody of claim 109 wherein the radioisotope is ^{125}I , ^{131}I , ^{111}In , ^{90}Y , $^{99\text{m}}\text{Tc}$, ^{177}Lu , ^{166}Ho , or ^{153}Sm .
111. (New) The antibody of claim 82 wherein BLyS is a multimer.

112. (New) The antibody of claim 111 wherein the multimer is a trimer and wherein the individual polypeptide components of the trimer comprise amino acid residues 134-285 of SEQ ID NO:3228.
113. (New) The antibody of claim 82 wherein the antibody neutralizes BLyS.
114. (New) The antibody of claim 113 wherein the antibody diminishes the ability of BLyS to bind to a BLyS receptor.
115. (New) The antibody of claim 114 wherein the BLyS receptor is TACI.
116. (New) The antibody of claim 114 wherein the BLyS receptor is BCMA.
117. (New) The antibody of claim 113 wherein the antibody diminishes the ability of BLyS to stimulate B cell proliferation.
118. (New) The antibody of claim 113 wherein the antibody diminishes the ability of BLyS to stimulate immunoglobulin secretion by B cells.
119. (New) The antibody of claim 97 wherein the antibody is selected from the group consisting of:
- (a) a whole immunoglobulin molecule;
 - (b) an scFv;
 - (c) a chimeric antibody;
 - (d) a Fab fragment;
 - (e) an Fab' fragment; and
 - (f) an F(ab')₂.
120. (New) The antibody of claim 97 wherein the antibody is a monoclonal antibody.
- al 121. (New) The antibody of claim 97 wherein the antibody is a human antibody.

122. (New) The antibody of claim 97 which comprises a heavy chain immunoglobulin constant domain selected from the group consisting of:

- (a) a human IgM constant domain;
- (b) a human IgG1 constant domain;
- (c) a human IgG2 constant domain;
- (d) a human IgG3 constant domain;
- (e) a human IgG4 constant domain; and
- (f) a human IgA constant domain.

123. (New) The antibody of claim 97 which comprises a light chain immunoglobulin constant domain selected from the group consisting of:

- (a) a human kappa constant domain; and
- (b) a human lambda constant domain.

124. (New) The antibody of claim 97 wherein the antibody has a dissociation constant (K_D) less than or equal to 10^{-9} M.

125. (New) The antibody of claim 97 wherein the antibody is coupled to a detectable label.

126. (New) The antibody of claim 125 wherein the detectable label is a radioisotope, an enzyme, a fluorescent label, a luminescent label, bioluminescent label or biotin.

127. (New) The antibody of claim 126 wherein the radioisotope is ^{125}I , ^{131}I , ^{111}In , ^{90}Y , $^{99\text{m}}\text{Tc}$, ^{177}Lu , ^{166}Ho , or ^{153}Sm .

128. (New) The antibody of claim 97 wherein BLyS is a multimer.

129. (New) The antibody of claim 128 wherein the multimer is a trimer and wherein the individual polypeptide components of the trimer comprise amino acid residues 134-285 of SEQ ID NO:3228.

130. (New) The antibody of claim 97 wherein the antibody neutralizes BLyS.

131. (New) The antibody of claim 130 wherein the antibody diminishes the ability of BLyS to bind to a BLyS receptor.
132. (New) The antibody of claim 131 wherein the BLyS receptor is TACI.
133. (New) The antibody of claim 131 wherein the BLyS receptor is BCMA.
134. (New) The antibody of claim 130 wherein the antibody diminishes the ability of BLyS to stimulate B cell proliferation.
135. (New) The antibody of claim 130 wherein the antibody diminishes the ability of BLyS to stimulate immunoglobulin secretion by B cells.
136. (New) The antibody of claim 100 wherein the antibody is selected from the group consisting of:
- (a) a whole immunoglobulin molecule;
 - (b) an scFv;
 - (c) a chimeric antibody;
 - (d) a Fab fragment;
 - (e) an Fab' fragment; and
 - (f) an F(ab')₂.
137. (New) The antibody of claim 100 wherein the antibody is a monoclonal antibody.
138. (New) The antibody of claim 100 wherein the antibody is a human antibody.

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139. (New) The antibody of claim 100 which comprises a heavy chain immunoglobulin constant domain selected from the group consisting of:

- (a) a human IgM constant domain;
- (b) a human IgG1 constant domain;
- (c) a human IgG2 constant domain;
- (d) a human IgG3 constant domain;
- (e) a human IgG4 constant domain; and
- (f) a human IgA constant domain.

140. (New) The antibody of claim 100 which comprises a light chain immunoglobulin constant domain selected from the group consisting of:

- (a) a human kappa constant domain; and
- (b) a human lambda constant domain.

141. (New) The antibody of claim 100 wherein the antibody is coupled to a detectable label.

142. (New) The antibody of claim 141 wherein the detectable label is a radioisotope, an enzyme, a fluorescent label, a luminescent label, bioluminescent label or biotin.

143. (New) The antibody of claim 142 wherein the radioisotope is ^{125}I , ^{131}I , ^{111}In , ^{90}Y , $^{99\text{m}}\text{Tc}$, ^{177}Lu , ^{166}Ho , or ^{153}Sm .

144. (New) An antibody purified from the cell line contained in ATCC Deposit Number PTA-3239.

145. (New) An antibody purified from the cell line contained in ATCC Deposit Number PTA-3240.

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